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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/301,811 04/28/99 HURST

J 242/044

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HM22/0620

EXAMINER

ALLEN, M

ART UNIT

PAPER NUMBER

1631

DATE MAILED:

06/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No.

09/301,811

Applicant(s)

HURST ET AL.

Examiner

Marianne Allen

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1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group I, claims 1 and 10-33, in Paper No. 6 is acknowledged. Non-elected claims 34-36 have been cancelled.

### ***Claim Rejections - 35 USC § 112***

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 depends upon claim 21; however, a gene is not a protein. It appears that this claim should depend upon claim 20.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 10, 12, 14, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmitt (U.S. Patent No. 5,983,220).

Schmitt describes a computer-based database evaluation system where a user inputs desired properties of an item (thereby defining a target) and can specify the relative importance of the properties for searching a database. The system returns similar items using fuzzy logic

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evaluation and nearest neighbor exploration and can identify multiple properties. The user may specify undesired properties to exclude items from being identified. The system may be used on-line using the Internet. (See abstract, columns 3-5, and claims.)

Claims 1, 10-16, 19-20, 23-29, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Cramer et al. (U.S. Patent No. 6,240,374).

Cramer et al. discloses searching a database of chemical compounds to select for compounds similar to a target compound using a Tanimoto coefficient. Neighborhood properties are used. Multiple properties are evaluated and identified. Removal criteria and other selection criteria such as price, availability, and pharmacological data are disclosed. (See abstract; column 9-11, 14, 34-36, 39; Figure 21; claims.)

Claims 1, 10-16, 20, 23-28, and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Grethe et al.

Grethe et al. discloses searching a chemical database to identify compounds having properties similar to a target compound. The degree of similarity can be specified by the user which is deemed to meet the limitation of providing a neighborhood range (see claim 1) or neighborhood effect (see claims 27-28). (See at least pages 399-400.)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-24 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Grethe et al. or Cramer et al. (U.S. Patent No. 6,204,374) in view of Schmitt (U.S. Patent No. 5,983,220).

Grethe et al. is applied as above but performs the method on a main frame. Grethe et al. does not disclose remote communication links or the Internet.

Cramer et al. is applied as above but does not disclose remote communication links or the Internet.

Schmitt is relied upon only to establish that those of skill in the art would have routinely been aware of the ability to perform database searches via the Internet and the desirability of doing so.

As such, it would have been obvious to perform the method of Grethe et al. or Cramer et al. using the Internet to access the desired databases or computer software or communicate the results of a search to a user. The specification at pages 6-9 acknowledges that this would have been well known and routine at the time of the invention.

Claims 10 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmitt.

Schmitt is applied as above and is directed to searching any type of database. (See column 4, lines 53-65.) Schmitt does not specifically disclose biological compound databases such as protein or gene databases. However, such databases would have been known in the art (for example SwissProt for proteins and GenBank for genes) and routinely searched for proteins

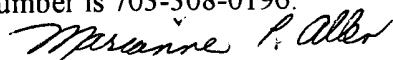
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or genes structurally similar to a target sequence. As such, it would have been obvious to search known databases using the general methodology of Schmitt.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 9:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Marianne P. Allen  
Primary Examiner  
Art Unit 1631

mpa  
June 15, 2001